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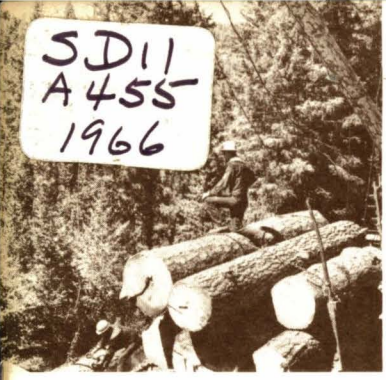


Region 6

The National Forests

IN THE PACIFIC NORTHWEST -- 1966

LIBRARY
MAY 12 1967
ROCKY MOUNTAIN STATION

Sheepman of The Okanogan

Multiple Use Highlights

on the

PACIFIC NORTHWEST REGION (R-6)

1966

Dear Friends:

We are pleased to bring you a report covering accomplishments and significant events in the managing of the National Forests of the Pacific Northwest and the administration of cooperative programs.

We are convinced of the wisdom of the Multiple Use concept established by Congress as the underlying guide to the management of National Forest lands. This concept fits so well the inseparable relationships in the forest community. Multiple Use enables us to manage the resources of the forest community so they fit most effectively in the modern day requirements of the American people.

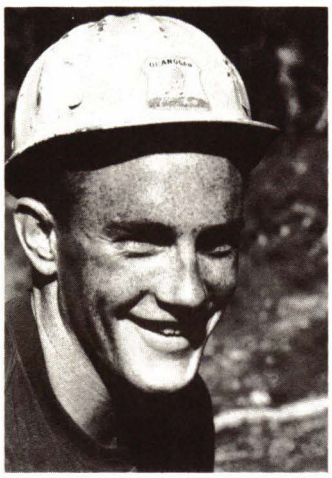
Sincerely yours,

J. Herbert Stone

J. HERBERT STONE
Regional Forester

A North Cascades smokejumper seems to hang in space above a jagged ridge of rock, ice and snow. The jumper was actually drifting toward a safe landing in a small meadow near the base of the peak, as a training exercise. The Forest Service's first experiments in smokejumping were carried out in 1939 from the Intercity Airport, now named the North Cascades Smokejumper Base, near Winthrop, Washington. The airborne firefighters have since saved forest resources worth millions of dollars.

All Photos by the Forest Service unless otherwise noted.



Representing a multitude of skills and specialties, the Forest Service is an organization of many faces. Paul Waterstrat, Okanogan, is a University of Washington zoology student, and spends his summers as a trail builder on the Okanogan National Forest. Sonja Simon, attending Portland State College, is a student worker in the Division of Information and Education, Regional Office. Forester Dick Buscher and watershed specialist Al Zander, Mt. Baker National Forest, are representative of the Forest Service's career professionals.

People are the Key

Who are the people who carry out the complex task of National Forest management and protection?

The job in the Pacific Northwest Region is accomplished by a work force of approximately 3,700 permanent full-time employees and 3,800 temporary or seasonal workers. Skills and specialties are many and varied. There are career professionals in specialized fields such as forestry, range management, wildlife biology, soil science, recreation management, landscape architecture, and engineering. Technicians and aides assist in the accomplishment of much of the field work in these areas.

Other occupations include pilots, mechanics, cooks, smokejumpers, warehousemen, and equipment operators. Serving and supporting all of these activities are such administrative functions as auditing, accounting, contracting, personnel management, automatic data processing, and clerical.

Recruitment of sufficient numbers of employees possessing the high qualifications needed is becoming increasingly difficult, and is intensifed by the remoteness of many Forest Service offices. Adequate housing also continues as a problem in remote areas.

Competing for college and technical school graduates, Forest Service recruiters visit campuses across the nation, interviewing candidates and explaining Forest Service work. High school "career days" visits, summer work programs, advertising, and other special efforts are also used to inform prospective employees in Forest Service careers.

The President's special employment programs for the hiring of physically handicapped, the mentally retarded, members of minority groups, and the economically disadvantaged have received particular emphasis.

Forest Service personnel men such as Bob Albert range far and wide to recruit qualified candidates for Forest Service careers.

Recreation and The Forests

They came for camping, hiking, climbing, horseback-ing, fishing, hunting, skiing, picture-taking, and just plain all-round enjoyment of the outdoors. "They" are the people who came by the millions to the National Forests of the Pacific Northwest in 1966.

The exact recreation visit totals were not known as this report went to press. Final information from the field was yet to be tabulated by electronic computers. It was expected that the totals for 1966 would show new records in recreational use of the National Forests.

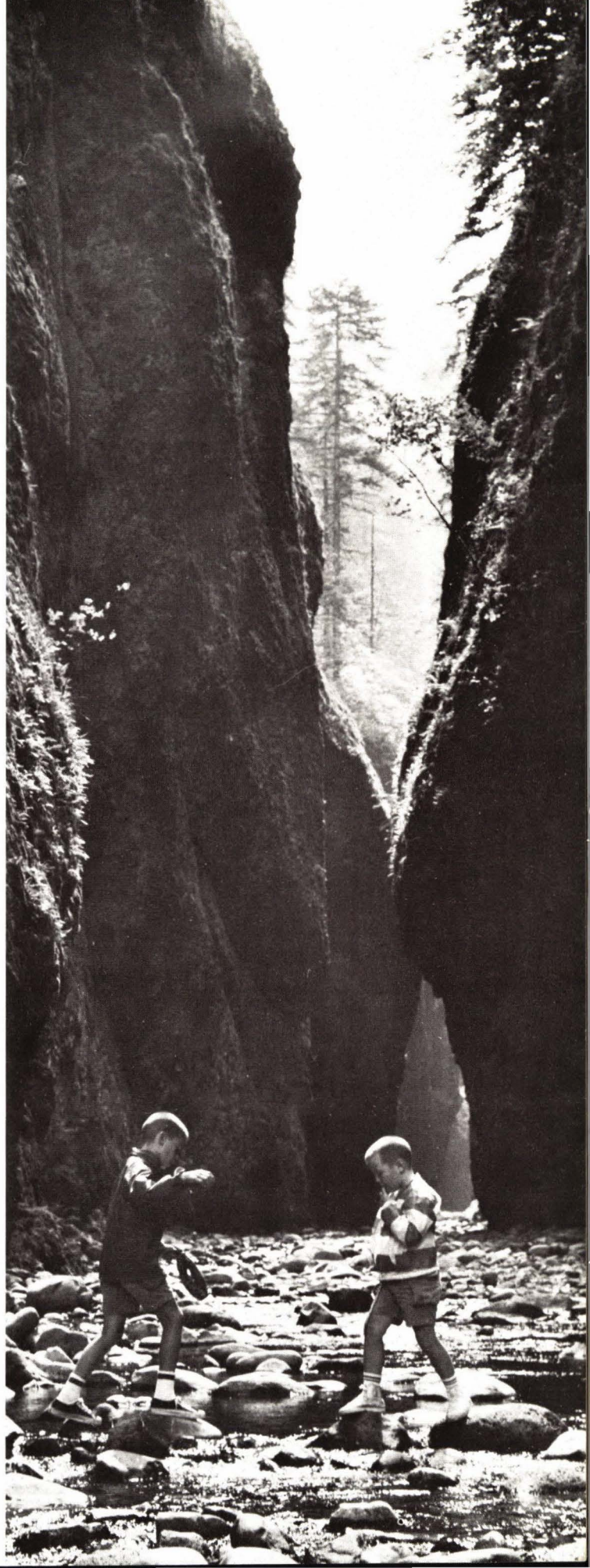
In 1965, first year for computing National Forest recreation use by automatic data processing, 23.6 million recreational visitor days were recorded on the National Forests of Oregon and Washington. A visitor day is any combination equal to one person spending a 12-hour period in recreational activity within a National Forest.

If the 1966 figures continue an apparent trend, then most of the recreational visitor days during the year were devoted to camping and picnicking (7.6 million visitor days in 1965), and general enjoyment and sightseeing (6.7 million visitor days in '65).

Among the campgrounds having the heaviest use were the 211 sites, representing 6,155 family camping units, designated in the National Forests of Oregon and Washington for coverage under the Land and Water Conservation Act.

Use of the sites requires payment of a daily fee or the purchase of a $7 permit. In 1966, the permit was in the form of a gold-colored wallet-sized card, replacing the bumper sticker used in 1965, first year of the fee system's operation.

The annual permits are good at some 7,000 designated federal sites — including both National Parks and National Forests — throughout the Nation. In the Pacific Northwest during 1966, the Forest Service sold 25,814 seasonal permits ($180,698), and $1 daily permits accounted for $74,549, for a total of $255,247. Sale of the $7 permits was up 148 percent over 1965; daily permits were up 88 percent; and total income was 127 percent greater.

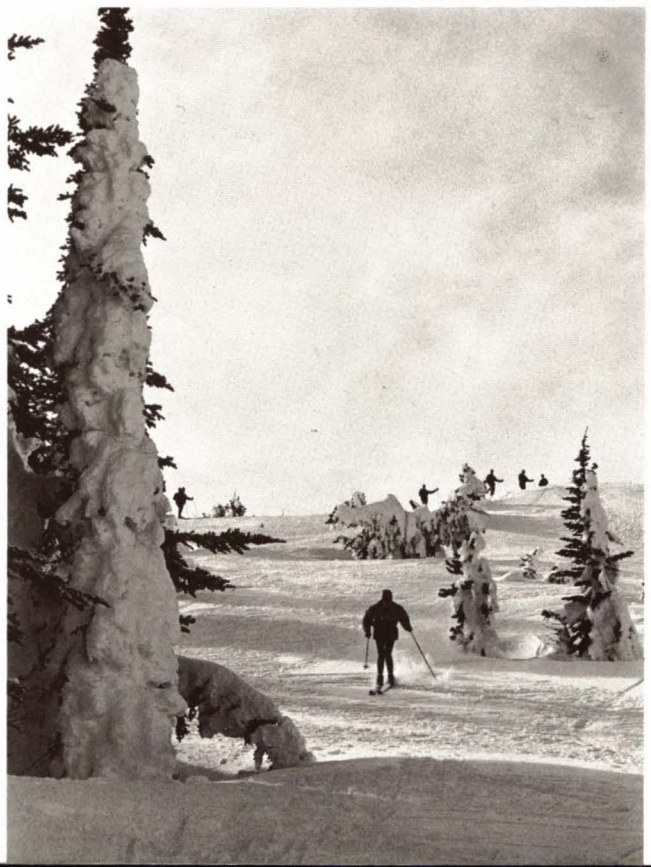


On the Mt. Hood National Forest, two young recreationists test their footwork on slippery stones in Oneonta Creek which flows down into the Columbia Gorge through perpendicular moss-covered walls.

Wenatchee Daily World Photo

Mission Ridge ski area opened in 1966 on the Wenatchee National Forest as the newest winter sports development on the National Forests of the Pacific Northwest Region.

Photo by Harold Laney, Wenatchee



Snow Fun Booming

More than 2 million visits were recorded at 28 winter sports sites in the Pacific Northwest Region during the 1965-66 snow season. The total represented a 10 per cent increase over the previous season. Nearly three-fourths of the visits were for skiing, although all types of snow fun continued to grow in popularity.

On the Wenatchee National Forest, the brand new Mission Ridge ski area, 13 miles southwest of Wenatchee, opened for the 1966-67 season with a day lodge and two double chairlifts. Several existing ski areas began the season with newly added services and facilities. They included Crystal Mountain, Snoqualmie National Forest, new double chairlift; Bachelor Butte, Deschutes National Forest, new overnight lodge; Hoodoo Ski Bowl, Willamette National Forest, new double chairlift; Multorpor Ski Bowl, Mt. Hood National Forest, new double chairlift with lights for night skiing; and Timberline, Mt. Hood National Forest, new double chairlift.

Another highlight of the year for winter sports enthusiasts — the Forest Service granted a permit for development of the Hood River Meadows ski area on the east face of Mt. Hood. The new area was expected to be ready for the 1967 - 68 ski season.

Construction of the new North Cross-State Highway through Washington's North Cascades was advanced past the spires of Liberty Bell Mountain and into Washington Pass in 1966, as shown in this aerial photograph. From the west, the highway construction is beyond Diablo and Ross Lakes — leaving some 20 miles to go before the two ends of the new highway are linked together. Construction of the highway involves close cooperation between the Forest Service, the Bureau of Public Roads, and the Washington State Highway Commission. The new highway is opening a vast mountain land to public travel and superb outdoor recreation opportunities.

The Forest Service is proposing establishment of a 95,450-acre Mt. Jefferson Wilderness which would include portions of the Willamette, Deschutes, and Mt. Hood National Forests.

Lot Fees Increased

Following extensive study, the Forest Service late in 1966 announced that fees for use of the 2,700 summer home lots on National Forest land in Oregon and Washington would be increased in 1967.

The new annual fees, beginning January 1, will vary from $30 for remote, less desirable lots, to $225 for high-value lots fronting on a lake or stream. The average increase per lot will be about $50 per year.

A use fee of 5 per cent of the market value of the lots is standard for National Forest lots. Lot values were established by comparison of more than 250 private lot transactions; and six National Forests with 75 per cent of the summer homes in the region used appraisals by professional, non-government appraisers. Appraisers found that summer home lot values as high as $5,000 were not uncommon.

Federal laws and regulations under which the Forest Service operates require charging fees in keeping with the current land values for this exclusive recreational use.

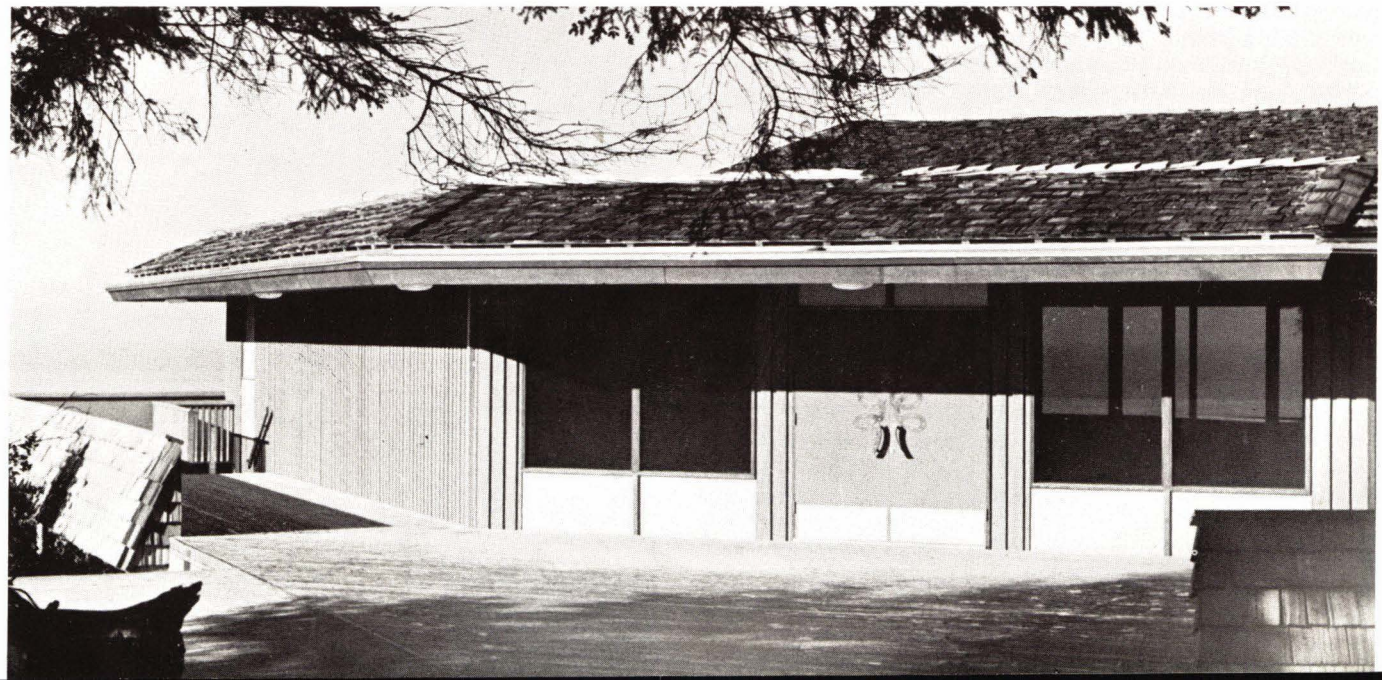
Wilderness Proposal Heard

Acting under the 1964 Wilderness Act, the Forest Service announced a proposal to establish a Mt. Jefferson Wilderness of 95,450 acres on the Willamette, Deschutes and Mt. Hood National Forests. A public hearing on the proposal was conducted on October 26 in Salem. Numerous statements made at the hearing, and by letter following the hearing, urged expansion of the boundaries to 125,000 acres. However, there was also considerable support for the wilderness boundaries as proposed, as well as requests for reduction in the size of the wilderness.

Under the proposal, the Mt. Jefferson Wilderness would include 81,549 acres of the existing Mt. Jefferson Primitive Area, established in 1930, plus additional adjoining National Forest lands totalling 13,901 acres.

On the Mt. Baker National Forest, Ross Lake campers wave to a Forest Service patrol boat, as Jack Mountain looms in the distance.

At Cape Perpetua, where the Siuslaw National Forest meets the sea, a Forest Service visitor information center will be opened in 1967 as a new focal point for recreationists along the Oregon Coast. Through exhibits and an especially produced motion picture, the Cape Perpetua center will interpret a central theme — "The Force of Nature" — as exerted through climate, geology, plant and animal life, and the ocean itself.



Peering down from their lofty vantage points, mountain goats are one of the many forms of wildlife in the National Forests.

Hunting is a traditional and popular form of recreation offered by the National Forests.

Hunting, Fishing On The Forests

Of all the recreational attractions on the National Forests, fishing and hunting are always near the top of the list. In 1965, when 23.6 million recreational visitor days were counted on the National Forests of the Pacific Northwest Region, 2.7 million visitor days were for fishing, and 1.9 million were for hunting.

By law, joint agreement, and long-lasting tradition, state game commissions are responsible for management and protection of the game, while the Forest Service is responsible for management of the wildlife habitat on National Forest lands.

In addition to continuing work in wildlife habitat improvement, fishery management on the National Forests received strong impetus in 1966 when two fishery specialists were added to the Regional staff. Primary duties of these men include coordination of work by other agencies which affects fishery habitat on the Forests, as well as planning for future fishery-oriented water development projects. The fishery specialists also offer intensified training to Forest Service personnel on the environmental needs of the many fish species found in Forest waters.

A wide range of cooperative actions, including the Job Corps fish ladder project described on Page 19, use agreements on fish habitat projects; and management supervision of logging practices, were part of fishery improvement work in 1966. Feasibility investigations of sites for construction of small water impoundments for angling and other recreation benefits continued.

Along with the two fishery specialists, an animal damage control specialist was added to the Regional staff in 1966. His primary duties are to train management personnel in recognizing and identifying animal damage to the forests, devising methods of controlling the damage, and integrating the methods into field use.

Linda Hughes, Seattle, proudly displays her catch of trout from Diablo Lake, Mt. Baker National Forest.

Okanogan National Forest grazing permittee, Emmet Smith, discusses high country grazing management with Conconully District Ranger Robert Snoich. Horseshoe Basin has been under grazing for 66 years, 50 years under the Smith permit.

The National Forests and Grazing

The clouds from the mid-summer storm begin to lift, revealing a peaceful pastoral scene of sheep grazing on the rolling green alpine meadow splashed with the color of wildflower patches.

A stream — cold, clear, sparkling — plays through the meadow. Sawtoothed and snow-crowned peaks soar in the distance.

You are visiting Horseshoe Basin in the high country of the Okanogan National Forest in north central Washington. The sheep seem as much a part of this landscape as the meadow, the wildflowers, the stream and the mountains.

And thus it has been for more than half a century.

You see a rider watching over his flock, just as he and his father before him have done for 50 years. The rider, Emmet Smith, is a big friendly man clad in worn leather chaps, army surplus field jacket and battered, sweat-stained Stetson. He tells you about his father, Ross Smith, now 88, first bringing sheep here in 1916 after the Basin had already been under grazing since 1901.

Emmet estimates that in 66 years of use — 50 years under the Smith permit — the Basin has fattened at least 85,000 lambs with a value of $1 million, and produced 600,000 pounds of wool worth at least a quarter of a million dollars.

Emmet figures that's probably enough wool to make nearly 200,000 wool shirts like the warm Pendleton he's wearing.

Emmet and District Ranger Bob Snoich of the Okanogan National Forest talk about the range, and you can sense their pride in Horseshoe Basin and the way it has been managed to produce rich grass and bountiful, pure water over the years.

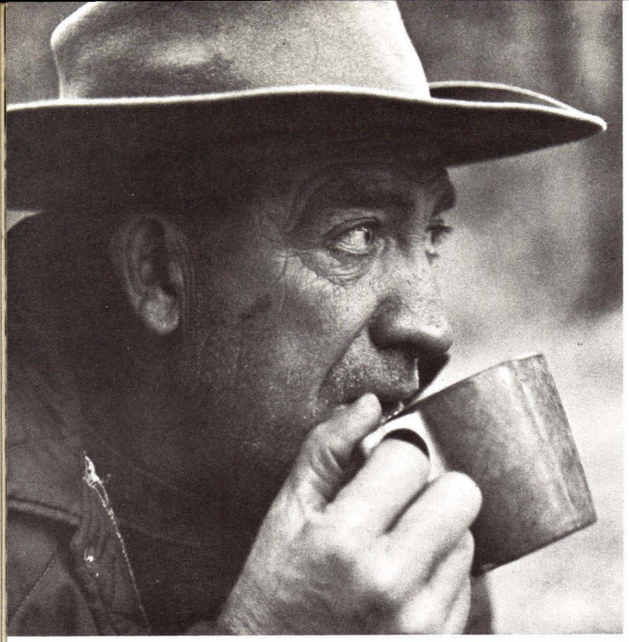
The Smith grazing permit is one of the 1,224 grazing permits administered by the Forest Service on 6.5 million acres of National Forest land in the Pacific Northwest.

In 1966, a total of 118,692 cattle and horses and 88,750 sheep grazed on the 19 National Forests and one

Range Improvements, 1966

Range improvement work on the National Forests and National Grasslands, Pacific Northwest Region, in 1966 included the following:

Seeding of rangelands	13,721	acres
Spraying for control of brush, poisonous plants and noxious weeds	6,867	acres
Water spreading projects	638	acres
Fence construction	228	miles
Cattleguard construction	83	
Spring Developments	129	
Ponds and reservoirs	129	
Stock driveways	25	miles



Nearing the end of the cattle drive back to the home ranch, Vic Lesamiz Jr. relaxes over a strong cup of trail camp coffee.

Cattle fattened by a summer of grazing in the high country move past a grove of aspen turning color, during the 60-mile drive back to the Victor Lesamiz home ranch.

National Grassland in the Region, accounting for a return of $255,151 in grazing fees.

While you're visiting in the high country of the Okanogan, you might meet some folks from another ranch operation very much representative of grazing history on the National Forests of the West.

As in the case with the Smith operation, the Victor Lesamiz ranch has a permit for grazing in the North Cascades. The permits were in existence prior to designation of the North Cascades Primitive Area.

Mr. Lesamiz is a success story in the best of the American tradition. He is a Basque who left his native Pyrenees Mountains at the age of 12, first working as a cabin boy. By the time he was 16, he was herding sheep in north central Washington, and he had his own herd at the age of 20. In 1907, he took his first herd into the Cathedral country, and he continues as the holder of one of the oldest grazing permits in the Region. In 1959, the Lesamiz Ranch converted its permit from sheep to cattle.

Every fall, a part of the old West lives again when they bring them down from the high country. Although still active at the age of 75, Mr. Lesamiz didn't make the 1966 drive which was headed up by his son, Victor Jr., and son-in-law, Ed Buchert Sr.

They call it the most rugged cattle drive in the State of Washington. This year it took them from the headwaters of the Similkameen River on the Canadian border to the home ranch near Tonasket — a distance of some 60 miles.

"After four or five days of this, it feels more like 160 miles," grins Vic Lesamiz Jr. over a steaming cup of trail camp coffee.

A stream of cold, sparkling water meanders past Emmet Smith's sheep in Horseshoe Basin of the Okanogan National Forest.

Timber Harvest Reflects Slowdown

More timber was sold but less was harvested from the National Forests of the Pacific Northwest in 1966, as compared with the record timber harvest year of 1965.

The harvest decline was due in part to the substantial cutbacks in many plants using National Forest timber, reflecting the depressing effect on the wood products industry caused by a noticeable reduction in 1966 housing starts.

The amount of timber actually harvested from the 19 National Forests in 1966 was 4.7 billion board feet, down from 1965's record 5.4 billion board feet. However, total value of the 1966 harvest was $119.6 million, up more than $10 million over the 1965 figure of $109.4 million.

While logging was on the decrease, timber sales in the Region last year amounted to 4.7 billion board feet with a value of $147.9 million. This was an increase

Serving as a "Paul Bunyan in the Sky", a giant balloon airlifts two logs across a timber sale area especially laid out by the Willamette National Forest for balloon logging. Built by the Goodyear Aerospace Corporation and operated by the Bohemia Lumber Company, the balloon in combination with a high-speed winch is capable of carrying up to 10 tons of logs at one time at distances of up to half a mile.

Goodyear Aerospace Corp. Photo

Young seedlings from the Wind River Nursery, Gifford Pinchot National Forest, are destined to be forests of the future. Established in 1909, the nursery has an annual production of 20 million seedlings. In 1965-66, 57,337 acres of logged or burned National Forest timberlands were replanted in the Region. An additional 10,548 acres were reforested by direct seeding.

of 263 million board feet over 1965 when sales totalled 4.4 billion board feet with a value of $122 million.

Volume of timber sold varies from the amount cut in any given year because the period in which a timber sale is harvested ranges from a few weeks to several years.

The Pacific Northwest Region's annual sustained-yield allowable cut is 4.325 billion board feet. Since harvest figures are averaged out over a period of years, a higher harvest figure for 1966 does not violate the sustained-yield principle.

National Forest Timber Cut and Sold
Pacific Northwest Region 1965-1966

		Volume, Board Feet	Value
Harvested	1966	4,728,456,000	$119,673,808
	1965	5,419,569,000	109,475,722
Sold	1966	4,738,055,000	147,954,094
	1965	4,475,085,000	122,011,511

Balloon Logging Begins

A huge balloon with a 10-ton carrying capacity was put to work in 1966 in the continual search for better ways to log timber from the steeper and more rugged areas of the National Forests in the Pacific Northwest.

With the great variation in terrain and timber size, logging is a challenging task in the Northwest. Timber on the more difficult areas cannot be harvested economically with conventional systems, nor without risking damage to soil and water.

The Forest Service encourages development of new logging equipment and systems by designing timber sales for the most promising of the new systems.

On the Willamette National Forest near Oakridge, the Deception Creek timber sale demonstrated that it is not only possible to successfully log by balloon, but under a certain combination of conditions, balloon logging may be the most desirable timber harvest method.

In principle, the balloon system is a comparatively simple cable method very similar to the conventional high-lead. The major differences are that there is no spar tree, and a balloon is attached to the butt rigging to lift the log off the ground and "fly" the load to the landing.

By making it feasible to log the more difficult areas, balloon logging could add millions of board feet annually

Forestry is moving into the space age. Working from a hovering helicopter, Research Forester John F. Wear uses a specially designed lightweight tree pruner to collect a Douglas-fir foliage sample. The technique was devised as part of a study being made by the Forest Service with the support of the National Aeronautics and Space Administration. Purpose of the study is to determine how space age aerial photography may be used to detect trees attacked by root rot. Collected branch samples are analyzed to determine the best combination of aerial film and filters.

to the allowable cut on National Forest lands. Road construction could be reduced, and balloon "flying" of the logs could eliminate the damage to soil caused by logs being dragged to the landing by conventional methods.

Timber Study Launched

While the giant balloon was attracting the attention of Willamette Pass travelers, the Forest Service was launching a monumental study aimed at meeting the ever-increasing demand for timber from the National Forests of the Douglas-fir region.

The study will consider the effects of various intensities of management and timber harvesting rates by decades over the next 80 years. It will develop data on costs, returns, and evaluate impacts on other forest uses.

The study will analyze such technical forestry aspects as different rotation periods; intensive practices such as thinning, intermediate cutting, salvage and prelogging, and accelerated reforestation; protection from insects, disease and fire; accelerated road construction; and impacts of increased soil disturbance.

Also under study will be the effects of various timber management alternatives on other resources such as water, recreation, and fish and wildlife, as well as the impact of alternatives on local, regional and national economies.

Scheduled for completion by July of 1968, the study is described by the Regional Forester as "a pioneering job — a first attempt to provide a sound basis for making the key decisions necessary for modern, effective management of National Forest timber resources."

Other highlights in timber management during the year included development of a comprehensive system to produce most of the accounting records for timber sale business by automatic data process, and use of a new timber sale contract form developed by the Forest Service through negotiation with timber industry representatives.

Insect Damage Surveyed

Results of the 19th annual aerial survey of some 52 million acres of federal, state and private forest land in Washington and Oregon in 1966 indicated approximately 1.2 million acres were infested by timber killer insects.

Although no large-scale control projects were deemed necessary for 1967, several steps were being taken to reduce and keep losses at a minimum.

In northeast Washington, parasitic wasps were released for biological control of the larch casebearer, a defoliator of larch timber. Additional releases of the casebearer's natural enemies are planned for 1967.

Surveillance and eradication of the European pine shoot moth continued in Oregon and Washington. New infestations were detected in three Washington communities — Longview, Port Angeles, and Prosser — all located outside the established zone of containment. An infestation was found and eradicated in a Portland nursery which had shipped infested pines to Davis, California, where the trees were intercepted and destroyed.

Land Exchanges

Additional progress was made during 1966 in the continuing program to block up National Forest lands into more manageable units. Six exchanges involving 1,598 acres of National Forest land and 1,936 acres of private land were completed under the General Exchange Act.

At year's end, three more exchanges were in the final approval stage. The cases involved 14,770 acres of National Forest land and 13,608 acres of private land. Two tracts of recreational land, totalling 154 acres, were purchased under the Land and Water Conservation Act, which provides authority to purchase land needed for public recreation.

During the year, negotiations were completed on 10 new share-cost road agreements, or major road purchases, between the Forest Service and private timber owners. The typical agreement covers an area of checkerboard land ownership. It provides for sharing construction and maintenance costs, and exchanging rights-of-way, for a joint road system within the area. Over the years, about 1,500 miles of road have been built under share-cost agreements, making 50 billion board feet of timber available for harvest.

In addition, the Region acquired some 500 road easements this year, mostly through negotiation. In 20 cases, or four per cent, condemnation action was required in order to provide essential multiple use access.

Transportation Strides Made

The year 1966 was another period of progress in the development of an adequate transportation system on the National Forests of the Pacific Northwest.

Representing a total investment value of $46.9 million, 1,736 miles of Forest Service road were constructed or reconstructed by purchasers of National Forest timber, and 489 miles were constructed by the Forest Service under contract from funds appropriated by Congress.

Also, 36 bridges were constructed at a value of $1.3 million, and 131 miles of trail were built or rebuilt at a cost of $690,000.

In October, the Region put into effect a regulation by the Secretary of Agriculture providing for cost recovery on special service roads. Under this concept of transportation system management, the Forest Service may require haulers of non-federal products, commodities and materials to pay their proportionate share of the governments's investment in construction.

With a mileage that would more than reach around the world, an extensive road network provides access to the Pacific Northwest National Forests for outdoor recreation, forest management and protection, and timber harvest. The access road system is being enlarged and improved yearly.

The little girl wading in the Forest lake, and the forester-hydrologist wading in the mountain stream are involved in a common appreciation for one thing — pure water. Bob Anderson is measuring water depth and flow velocity in a stream on the Green River "barometer watershed", Snoqualmie National Forest. Whirling cups, turned by the flow of the water, transmit clicks to Anderson's headset. By counting the clicks against his stopwatch, Anderson determines the stream's rate of flow.

Barometer Watersheds Have Important Role

"Barometer watershed" became a new term that assumed increasing importance during 1966 under the Forest Service's vital responsibility for maintaining and improving the precious lifeline of clean and abundant water flowing from the National Forests.

Representing nearly half of the total water runoff in the Pacific Northwest, water from the Nationl Forests serves the needs of more than 150 cities, generates electric power, irrigates crops and orchards, and provides endless recreation opportunities.

Four barometer watersheds have been established within the Region to serve as pilot projects for the Forest Service to evaluate watershed and multiple resource management practices. The barometer watersheds are the Green River, Snoqualmie National Forest, involving some 148,000 acres; the Entiat River, Wenatchee National Forest, 130,000 acres; upper Clackamas River, Mt. Hood National Forest, 87,000 acres, and north fork of the Umatilla River, Umatilla National Forest, 85,000 acres.

Installation of scientific instrumentation, allowing watershed management experts to figuratively record the pulse of the barometer watersheds, was nearly completed in 1966.

Watershed management principles developed from Pacific Northwest Forest and Range Experiment Station research will be applied to actual on-the-ground use, and

the instrumentation will enable Forest officers to monitor the effects of applied programs.

Among the most promising of the new practices is the work to increase water yields from National Forest lands in water-short areas. Through prescribed manipulation of vegetation cover, installation of snow fences, and other measures, it is hoped that a greater snowpack will be obtained to result in higher total water yields without increasing the risk of flood.

Forester-hydrologist Lee Cromley inspects an automatic recording rain gauge installed on the Clackamas "barometer watershed", Mt. Hood National Forest.

Job Corpsmen Note Progress

For the Pacific Northwest Region's four Job Corps Conservation Centers, 1966 was the first full year of operation in helping to provide a better life for young men from poverty stricken homes.

Three Conservation Centers operated by the Forest Service and the Office of Economic Opportunity are in Oregon — Wolf Creek, Umpqua National Forest; Angell, Siuslaw National Forest; and Timber Lake, Mount Hood National Forest. The fourth center, Cispus, is in Washington on the Gifford Pinchot National Forest. The centers have a total capacity of 800 Job Corpsmen, offering them work, basic education and vocational training, and social opportunities.

In fiscal year 1966, the four Centers graduated 229 Corpsmen to urban centers for advanced vocational training, and 220 were placed in jobs or entered the military service.

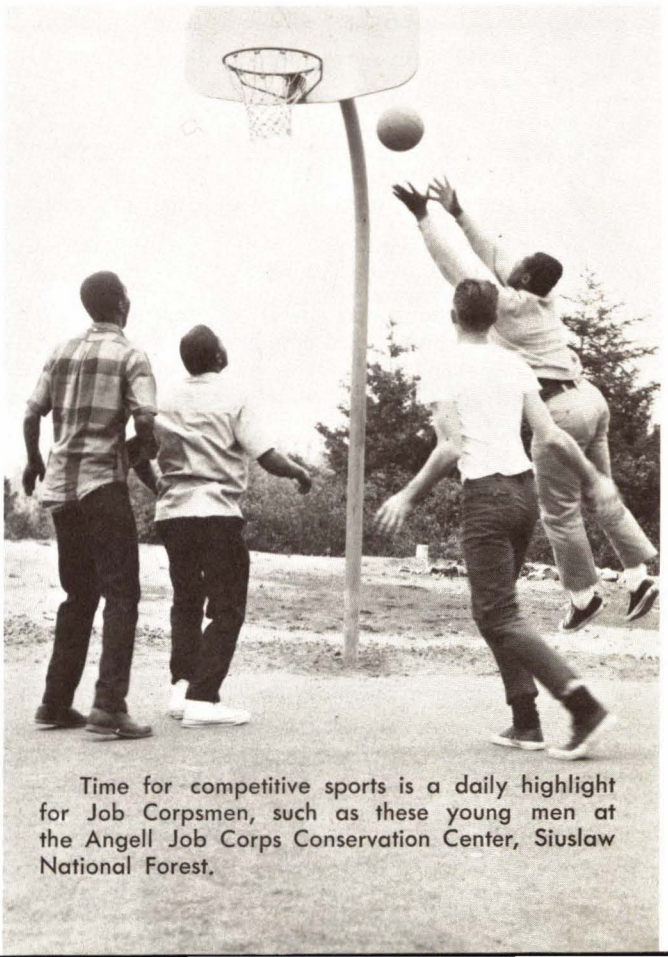
Conservation project accomplishments in 1966 by the four Centers included 354 acres of forest thinning and pruning; 300 acres of reforestation by planting or seeding; 39 campgrounds and picnic sites constructed or rehabilitated; 3.3 miles of road construction or improvement; 14.8 miles of trail construction and betterment; 13.9 miles of trail maintenance and seven miles of road maintenance; seven trail bridges constructed or improved; 361 bushels of cones gathered, and two heliports constructed.

Job Corps Center fire suppression crews distinguished themselves during the critical 1966 fire season, spending 2,500 man-days in fighting forest and range wildfires.

Corpsmen were also utilized on such projects as slash burning, telephone line maintenance, recreation and administrative site landscaping, construction and maintenance of Center facilities, and stream channel cleanup.

In a cooperative project designed to improve fishery habitat in the Collawash River drainage, Timber Lake Job Corpsmen began construction of a fishway over Pegleg Falls on Nohorn Creek. The job, to be completed in 1967, has the Bureau of Commercial Fisheries providing the funds, the Oregon State Fish Commission doing the engineering and design, and the Forest Servce Job Corpsmen serving as the work force. Several miles of spawning and rearing area will be made available.

Engineered by the Oregon Fish Commission, financed by the Bureau of Commercial Fisheries, and constructed by Timber Lake Job Corpsmen, a new fishway over Pegleg Falls will be a major fishery habitat improvement in the Collawash River drainage, Mt. Hood National Forest.



Time for competitive sports is a daily highlight for Job Corpsmen, such as these young men at the Angell Job Corps Conservation Center, Siuslaw National Forest.

Fire retardant slurry cascades from a converted B-17 bomber attacking a 1966 timber fire on the Fremont National Forest.

Forest Fire Season Severe

Prolonged drought conditions prevailed over Oregon and Washington during 1966, and the fire season was one of the most severe on record.

On lands protected by the Forest Service in the Pacific Northwest Region, 1,460 fires blackened 12,890 acres of timber and range lands. The number of fires was 439 less than in 1965, but the acreage was four times as great.

The Winter Rim Fire, covering 6,222 acres on the Fremont National Forest, was the largest fire of the season on land protected by the Forest Service in the Pacific Northwest Region. Starting August 15 from a logging

Fire Occurence

On lands protected by the Forest Service, Pacific Northwest Region, in Oregon and Washington.

Number of fires	10-year average	1965	1966
Lightning	1,054	1,131	694
Man-caused	642	768	766
Total	1,696	1,899	1,460
Area Burned (acres)	15,157	3,209	12,890

operation, the Winter Rim fire accounted for about half of the total acreage burned during the season in the Region.

Other large fires included the Hornet Creek Fire, Wenatchee National Forest, caused by lightning on August 26, 1,520 acres; Lostine Fire, Wallowa-Whitman National Forest, started from refuse burning August 18 outside the Forest boundary, 1,245 acres of state and Forest protected land; and Devils Ridge Fire, Mt. Hood National Forest, believed started by an incendiarist on August 20, 1,230 acres.

The fires spread rapidly and were difficult to control, reflecting severe burning conditions. Hot and dry weather began in late March and continued through October over much of the Pacific Northwest. By mid-August, southeastern Oregon was described by the Weather Bureau as being in a condition of "extreme" drought. Pendleton had the driest April-June period since 1890. Lakeview, headquarters of the Fremont National Forest where the Winter Rim Fire occurred, suffered its driest season since 1931.

One favorable factor was a decrease in lightning-caused fires. The 694 blazes in this category were about 70 per cent of the 10-year average.

Aircraft continued to be a vital weapon in the battle against fires. Aerial detection was used to locate fires; smokejumpers were quickly dropped to launch an immediate attack; aerial tankers "bombed" fires with retardants to hold back the spread of the flames. If a situation worsened, fresh attack crews were flown in, some from great distances.

In recent years, helicopters have become indispensable workhorses in forest fire control. Larger and more powerful "choppers" proved themselves during the critical 1966 fire season. Container dangling from this Sikorsky helicopter has a capacity of 300 gallons of water for precision dropping on fires. Container can be refilled as the 'copter hovers over a river or lake. Bigger machines are also used for rapid transport of men and equipment to the firelines.

Oregon Forestry Department Photos

The Oxbow Ridge Fire in Oregon's coast range burned 46,500 acres in August of 1966 before being controlled by the Oregon State Department of Forestry and the Western Lane Fire Protection Association. In photo at right, a helicopter drops retardant on one edge of fire.

Protecting State, Private Timber

Management and protection of the 25,000,000 acres of private and state forest lands in Oregon and Washington are of major importance to this region and to the nation. They include much of the Pacific Northwest's most productive and accessible land. These lands are heavily used by recreationists, local residents, and others. They have provided most of the timber to supply the wood using industry in past years and the second-growth stands will provide much of the pulp and log requirements in future years.

The State Forestry Department in Oregon and the Department of Natural Resources in Washington administer many activities on these lands. On State-owned lands, this includes all multiple use activities. On private lands, fire control is the major responsibility, but State personnel promote good forest management practices. The federal government encourages protection and forest management on these lands by providing financial assistance. During the current fiscal year, federal allotments amount to some $675,000 for each state.

In addition to its regular budget, Oregon spent almost $1 million for extra costs to suppress fires during the 1966 season.

Federal-State cooperative fire control activity started in 1913 when a little more than $20,000 was divided between the two states to provide better protection. Today's protection program involves vastly increased expenditures, protection of all state and privately-owned forest lands, increased values of the timber and other resources protected, and an all-out effort to prevent fires or to control them with a minimum of acreage burned.

The 1966 fire season on state-protected lands was one of the driest in recent years. Fuels became excessively dry. This condition culminated on August 20 when a spark from equipment on a road started the Oxbow Ridge Fire. In two days the fire burned most of the ultimate 46,500 acres covered by this fire.

The State and Western Lane Fire Protection Association mobilized up to 1,000 protection personnel, logging industry employees, inmate crews, and other firefighters. Also, 165 pieces of mechanical equipment were assembled, including bulldozers, pumpers, tankers and power saws. A mobile weather unit was used to provide on-the-spot forecasts. Helicopters were used to dump some 153,000 pounds of fire retardant slurry on the fire as well as for

mapping and scouting the fire. The fire was eventually controlled within 75 miles of firelines, but was the largest fire in Oregon in many years except for the three Tillamook Burn fires.

In 1966, Washington suppressed 1,331 fires with 1,616 acres burned. Oregon had 1,324 fires that burned a total of 57,044 acres. Both states are continually devising ways and means to prevent fires and also to control them more effectively after they start. Some of this year's activity included the following:

Debris burning started 385 fires on private lands during 1966 in Oregon and Washington. Oregon Department of Forestry personnel conducted a statewide interview survey to discover basic resaons for these fires. An analysis of this survey data will provide guidelines for future prevention measures to reduce fires from this cause.

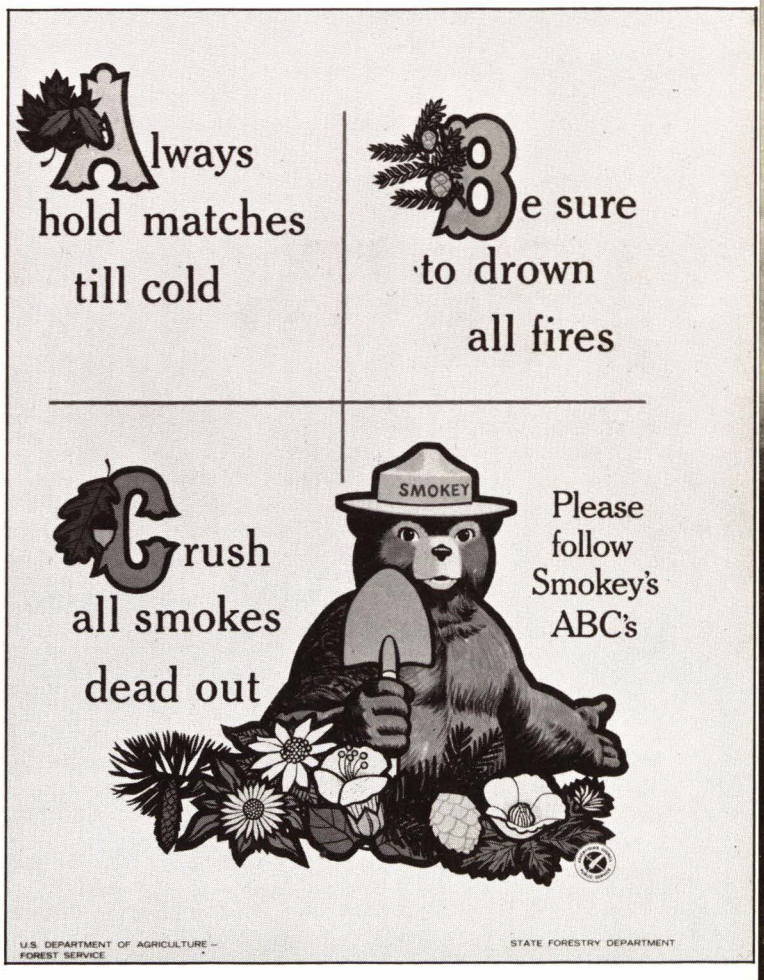
Railroads accounted for 317 fires in the two states. Many of these fires resulted from ignition of an accumulation of chips on the right-of-way. Largely as a result of State protection personnel efforts, a netting is now spread over loaded chip cars to eliminate loss of chips. Continued use should eventually reduce the chip hazard on rights-of-way and result in fewer fires. Effort is also continuing to eliminate exhaust sparks and other causes of these fires.

Training of state protection personnel has been supplemented by use of the Forest Service fire simulator at Redmond, Oregon. About 120 men from the Oregon State Forestry Department and 45 men from the Washington Department of Natural Resources participated in the training. The simulator has proven very effective in teaching new suppression methods, policies, and individual responsibilities for taking effective action on fires.

A nationwide forest fire damage appraisal program was started this year by all state forestry departments. One of the training sessions was held in Eugene, Oregon, where representatives from California, Oregon, Washington, and Alaska were instructed on procedures and developed criteria for use in this area. Data will be collected on fuels burned, weather, topography, time of day, and other factors influencing the intensity of the fire. This information combined with the data on timber damage will be correlated with forest survey statistics and processed nationally to obtain the fire damage to timber resources. When sufficient samples have been taken, damage can eventually be computed without the extensive field work now required.

Washington State Dept. of Natural Resources Photo

Both the Oregon State Department of Forestry and the Washington State Department of Natural Resources sent personnel to the Forest Service's Redmond, Oregon, Air Center in 1966 for fire simulator training. Above, Washington DNR men operate the simulator, which provides realistic fire control training.


Always hold matches till cold
Be sure to drown all fires
Crush all smokes dead out
SMOKEY
Please follow Smokey's ABC's
U.S. DEPARTMENT OF AGRICULTURE — FOREST SERVICE
STATE FORESTRY DEPARTMENT

Under the Cooperative Forest Fire Prevention campaign, the Forest Service and State forest protection agencies use posters and other materials featuring Smokey Bear, the international symbol of forest fire prevention. Here is one of the posters to be used during the 1967 campaign.

The Regional Staff

J. Herbert Stone
Regional Forester

Alfred E. Spaulding
Deputy Regional Forester

Assistant Regional Foresters:

Kenneth O. Wilson
Fire Control

Jack H. Wood
Information & Education

Paul E. Neff
Lands

Marvin L. Smith
Operation

Dan E. Bulfer
Personnel Management

Avon Denham
Range, Wildlife Management

Philip L. Heaton
Recreation

Edward H. Marshall
State and Private Forestry

C. Glen Jorgensen
Timber Management

Thomas B. Glazebrook
Watershed Management

Ward W. Gano
Regional Engineer

Reed H. Jensen
Regional Fiscal Agent

The Regional Office is located in the Multnomah Building 319 SW Pine Street Portland, Oregon

Mailing address:
PO Box 3623
Portland, Oregon 97208

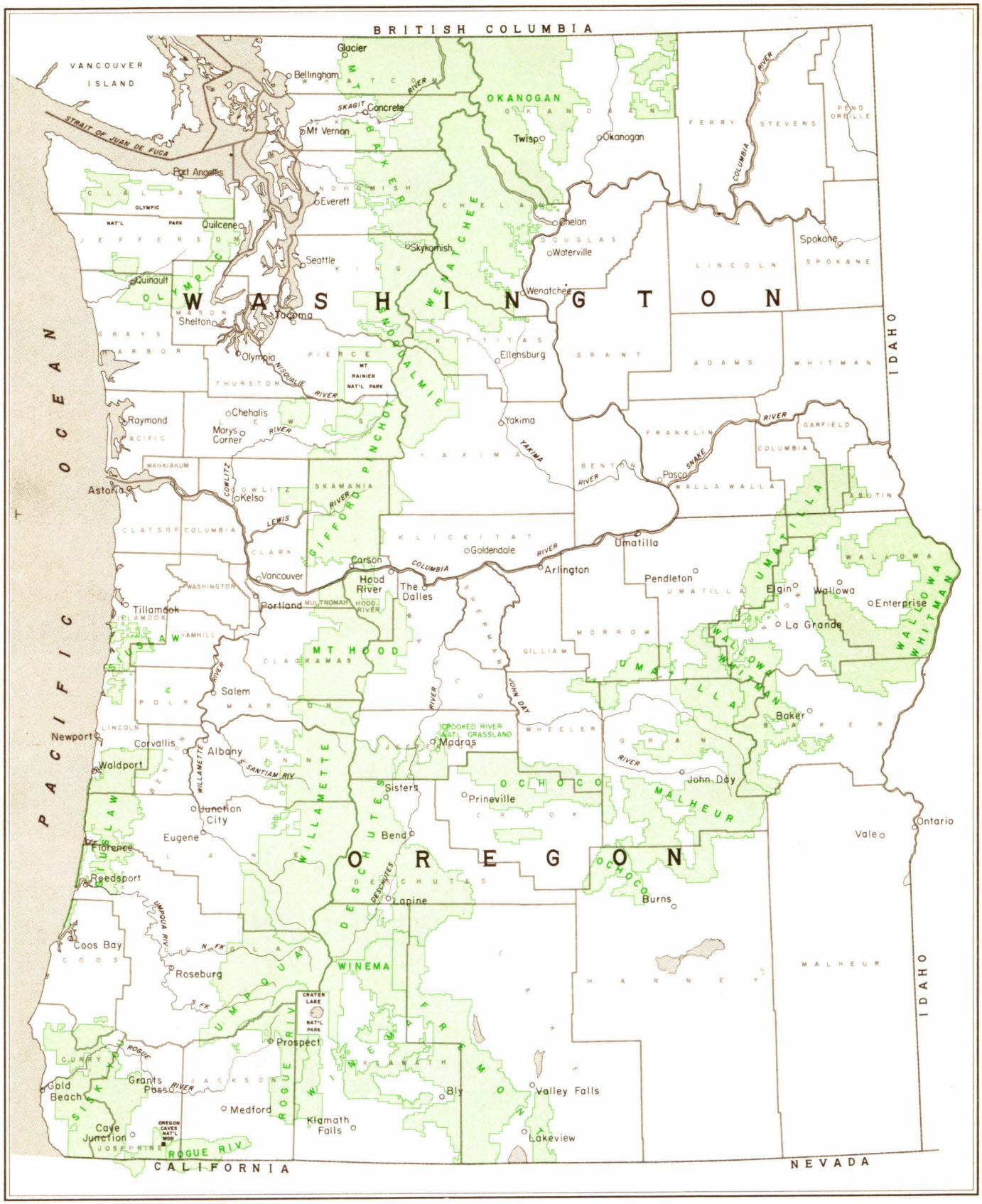
Pacific Northwest Region (R-6) Division and Forests

Forests and Supervisors

Deschutes Bend, Oregon	Ashley A. Poust
Fremont Lakeview, Oregon	Carl W. Simpson
Gifford Pinchot Vancouver, Washington	Ross W. Williams
Malheur John Day, Oregon	Rexford A. Resler
Mt. Baker Bellingham, Washington	Harold C. Chriswell
Mt. Hood Portland, Oregon	Lloyd G. Gillmor
Ochoco Prineville, Oregon	Leslie J. Sullivan
Okanogan Okanogan, Washington	Andrew C. Wright
Olympic Olympia, Washington	Richard E. Worthington
Rogue River Medford, Oregon	Carroll E. Brown
Siskiyou Grants Pass, Oregon	John R. Philbrick
Siuslaw Corvallis, Oregon	Spencer T. Moore
Snoqualmie Seattle, Washington	Laurence O. Barrett
Umatilla Pendleton, Oregon	Wright T. Mallery
Umpqua Roseburg, Oregon	F. Leroy Bond
Wallowa-Whitman Baker, Oregon	John L. Rogers
Wenatchee Wenatchee, Washington	John K. Blair
Willamette Eugene, Oregon	David R. Gibney
Winema Klamath Falls, Oregon	Alexander E. Smith

Sunset, Crooked River National Grassland, Mt. Jefferson in distance.

The Forest Service of the U. S. Department of Agriculture is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the states and private forest owners, and management of the National Forests and National Grasslands, it strives --- as directed by Congress --- to provide increasingly greater services to a growing Nation.



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
EDWARD P. CLIFF, CHIEF

NATIONAL FORESTS
OF THE
PACIFIC NORTHWEST REGION

U.S.F.S. R-6

GPO 992-071

LEGEND

- STATE LINES
- COUNTY LINES
- NATIONAL FORESTS